



1/12

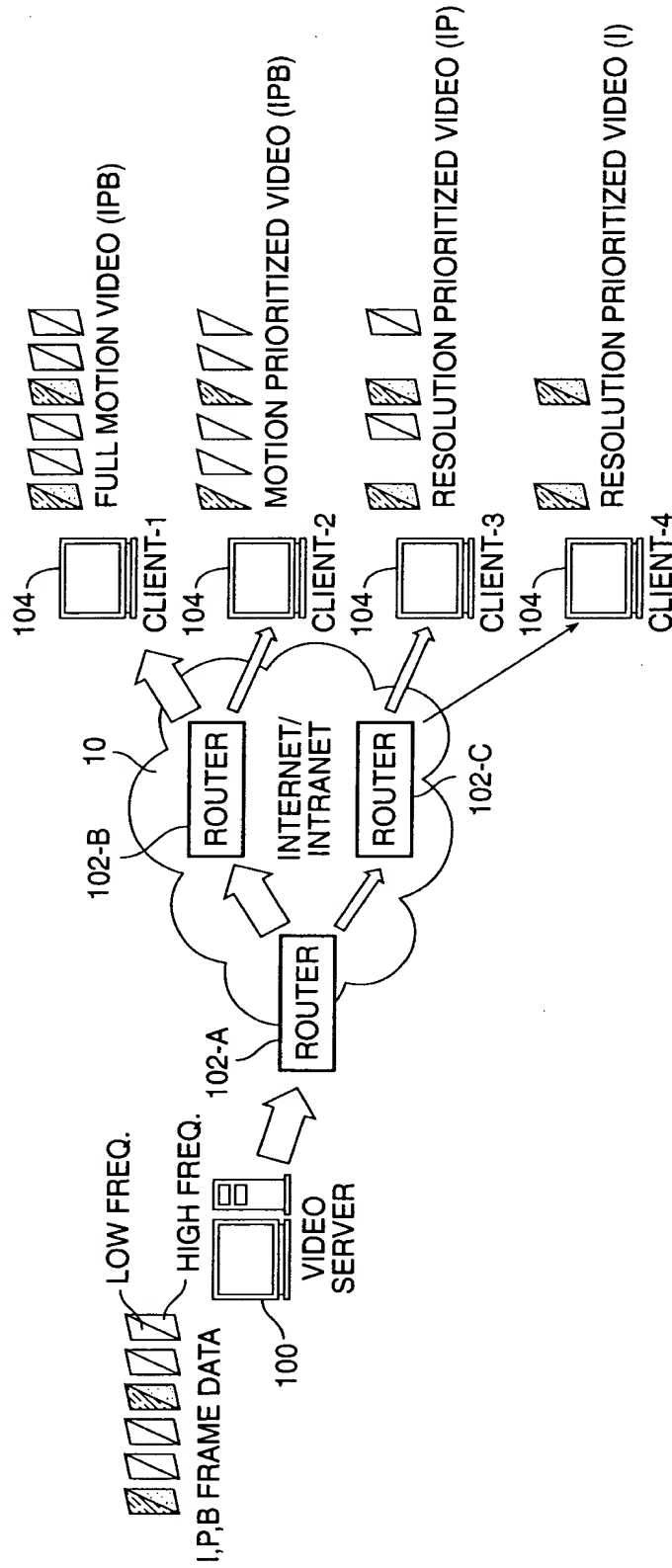


FIG. 1

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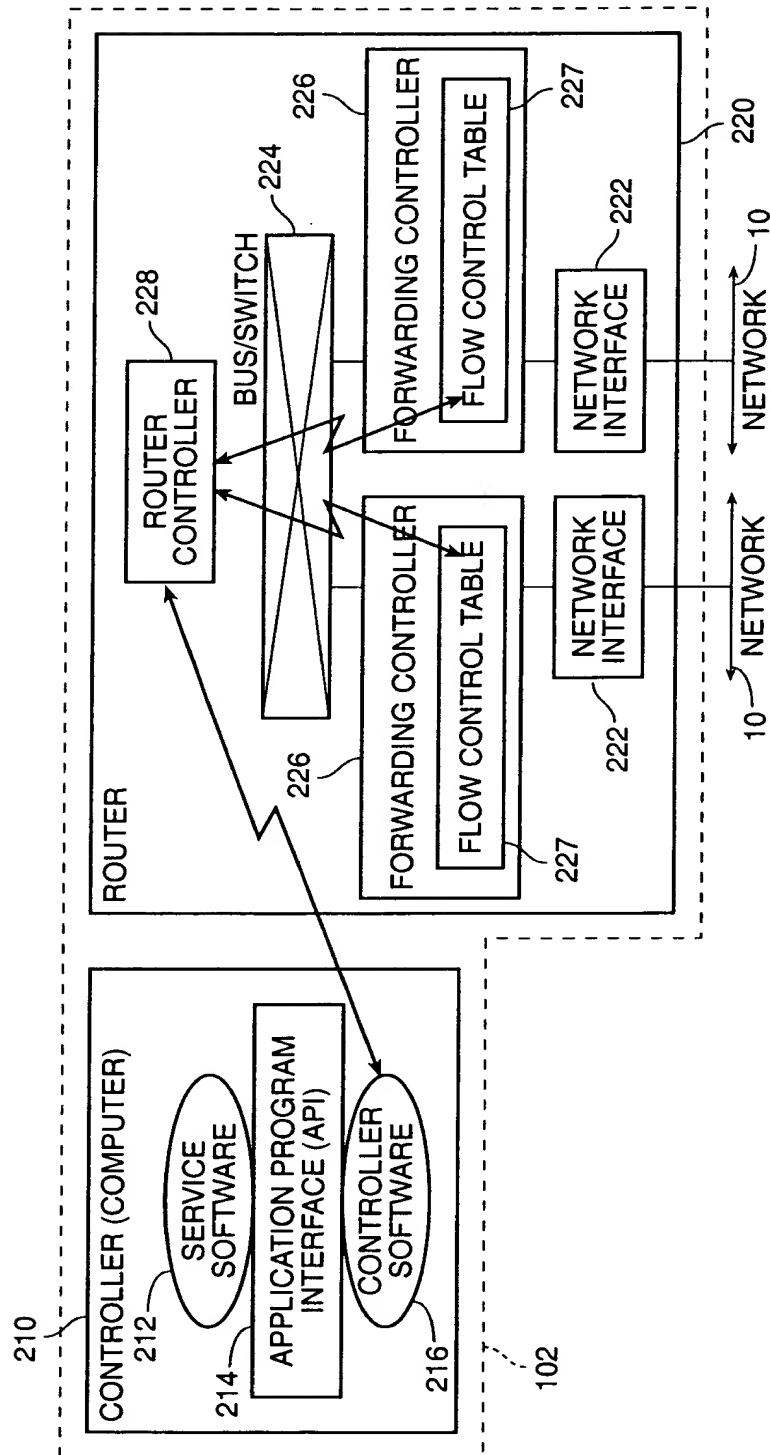


FIG. 2

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310		320		330	340
FLOW		ACTION		FLAG	NEW_ACTION
SRC_ADDR	DST_ADDR	PRIORITY, DISCARD, ...			PRIORITY, DISCARD, ...
1	IP-aa	0	
2	IP-bb	...	PRIORITY xx	0	
3	IP-cc	...	PRIORITY yy	1	DISCARD
	IP-dd	...	PRIORITY zz	0	
	IP-ee
N
	•	•	DEFAULT_ACTION	0	
	•	•			

312 314

FIG. 3

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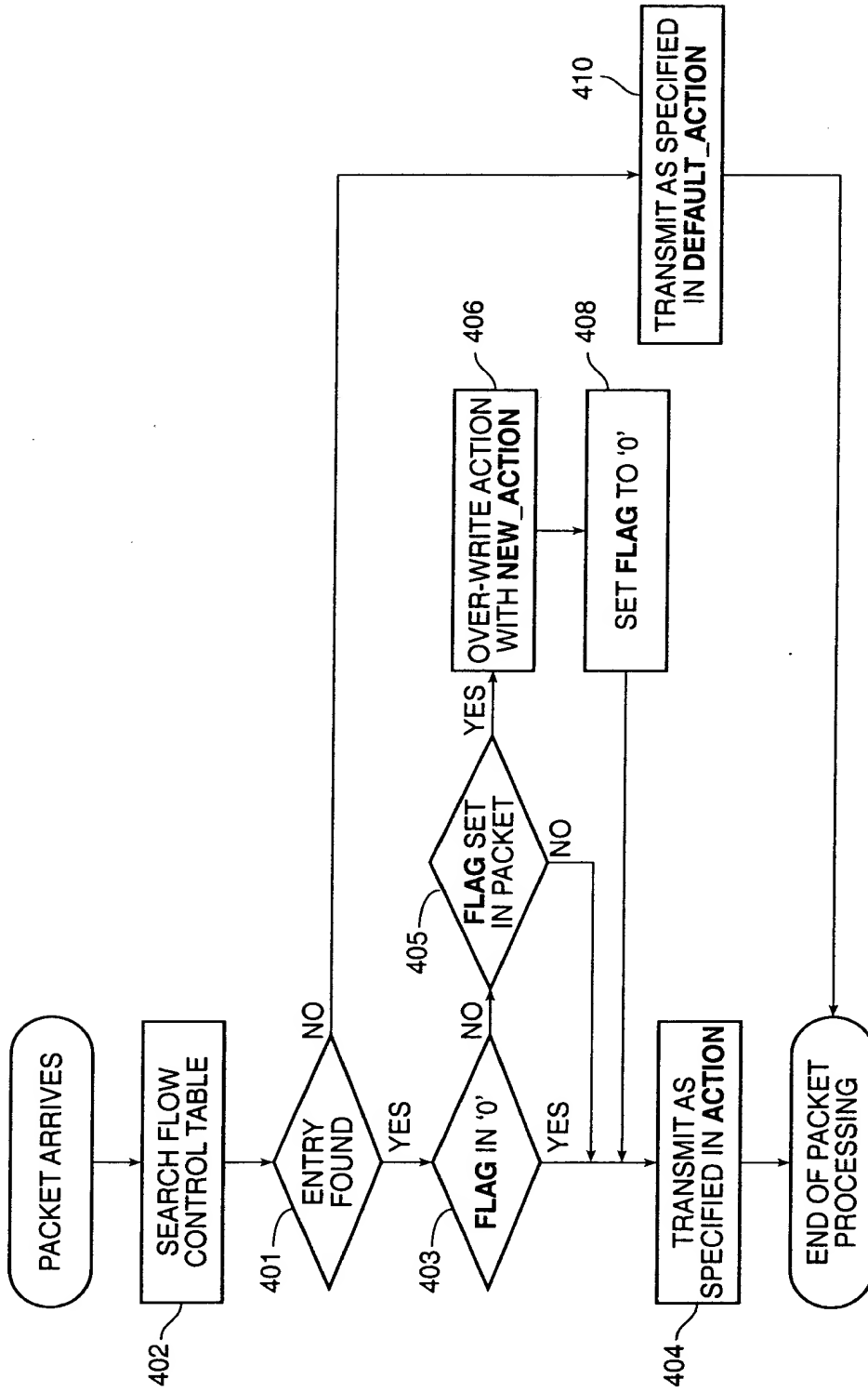


FIG. 4

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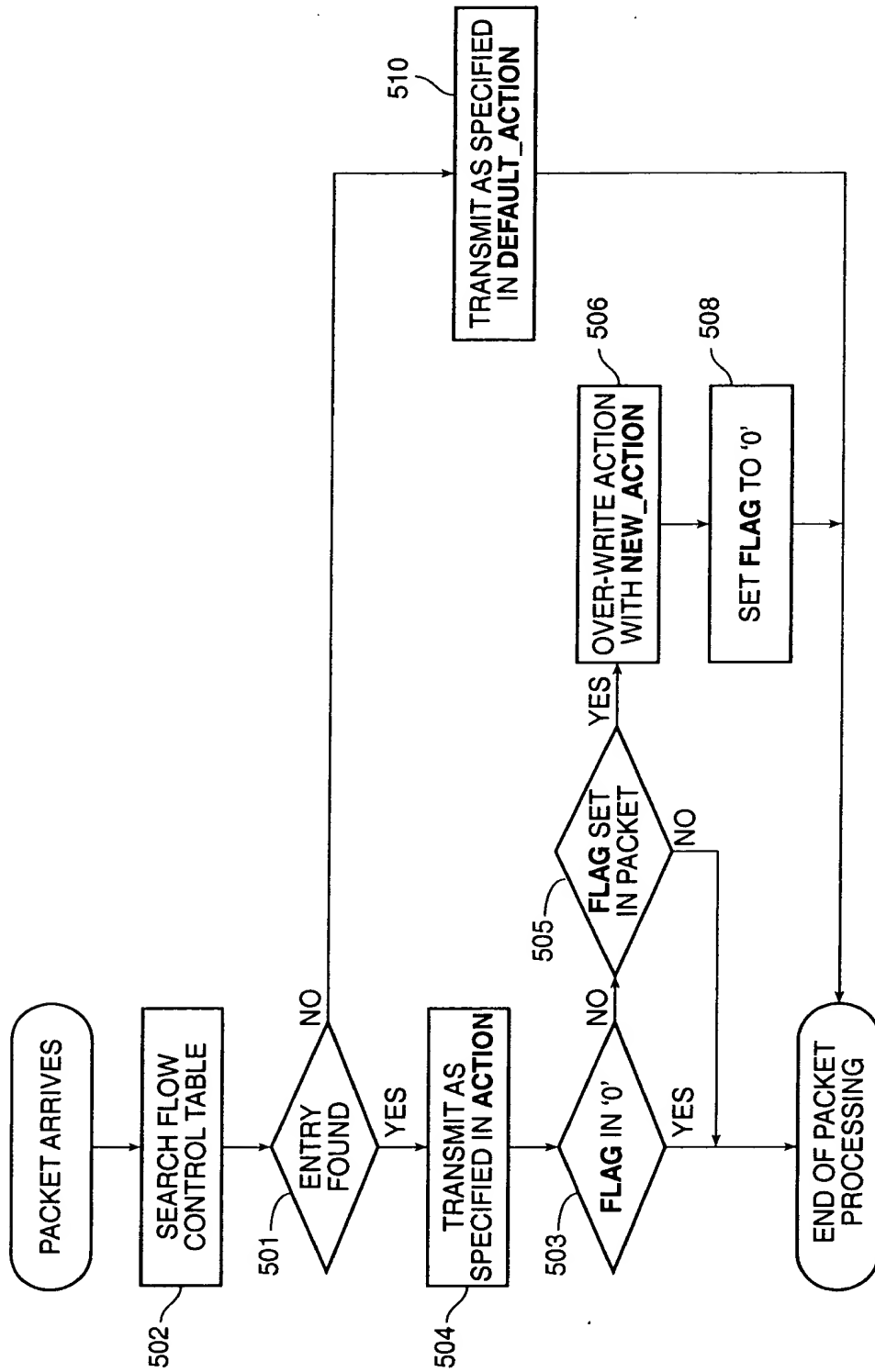


FIG. 5

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```
struct END_POINT {  
    IP_ADDRESS          ipaddr ;          /* may be range of addresses */  
    unsigned short      port ;            /* may be range of ports    */  
    ...  
};  
  
struct FLOW {  
    END_POINT           source ;  
    END_POINT           destination ;  
    ...  
    octet              protocol_id ;  
    ...  
};  
  
struct ACTION {  
    ...  
    /* Specify priority, mode (DISCARD), etc), etc. */  
    /* Could be a list, relating values of particular packet field to an ACTION */  
    ...  
};  
  
enum FLAG { CHANGE_IMMEDIATE, CHANGE_SYNCHRONOUS } ;  
  
boolean Set_QoS ( in FLOW target_flow, in ACTION new_action, in FLAG flag ) ;
```

FIG. 6

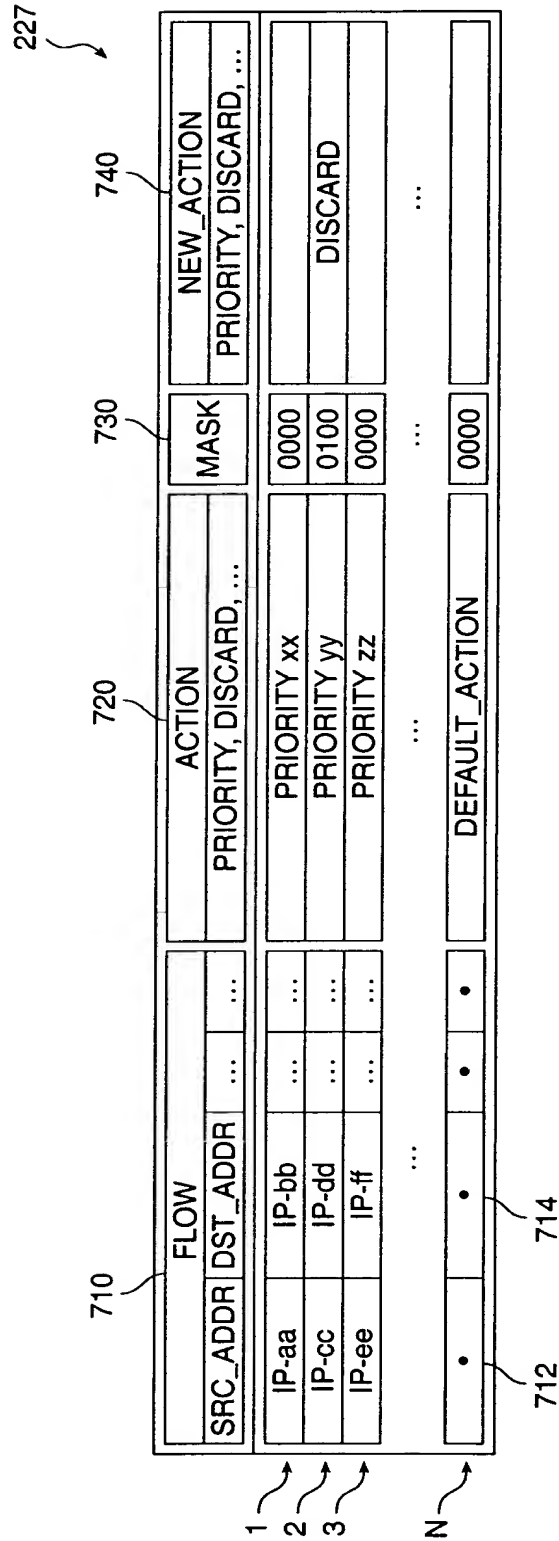


FIG. 7

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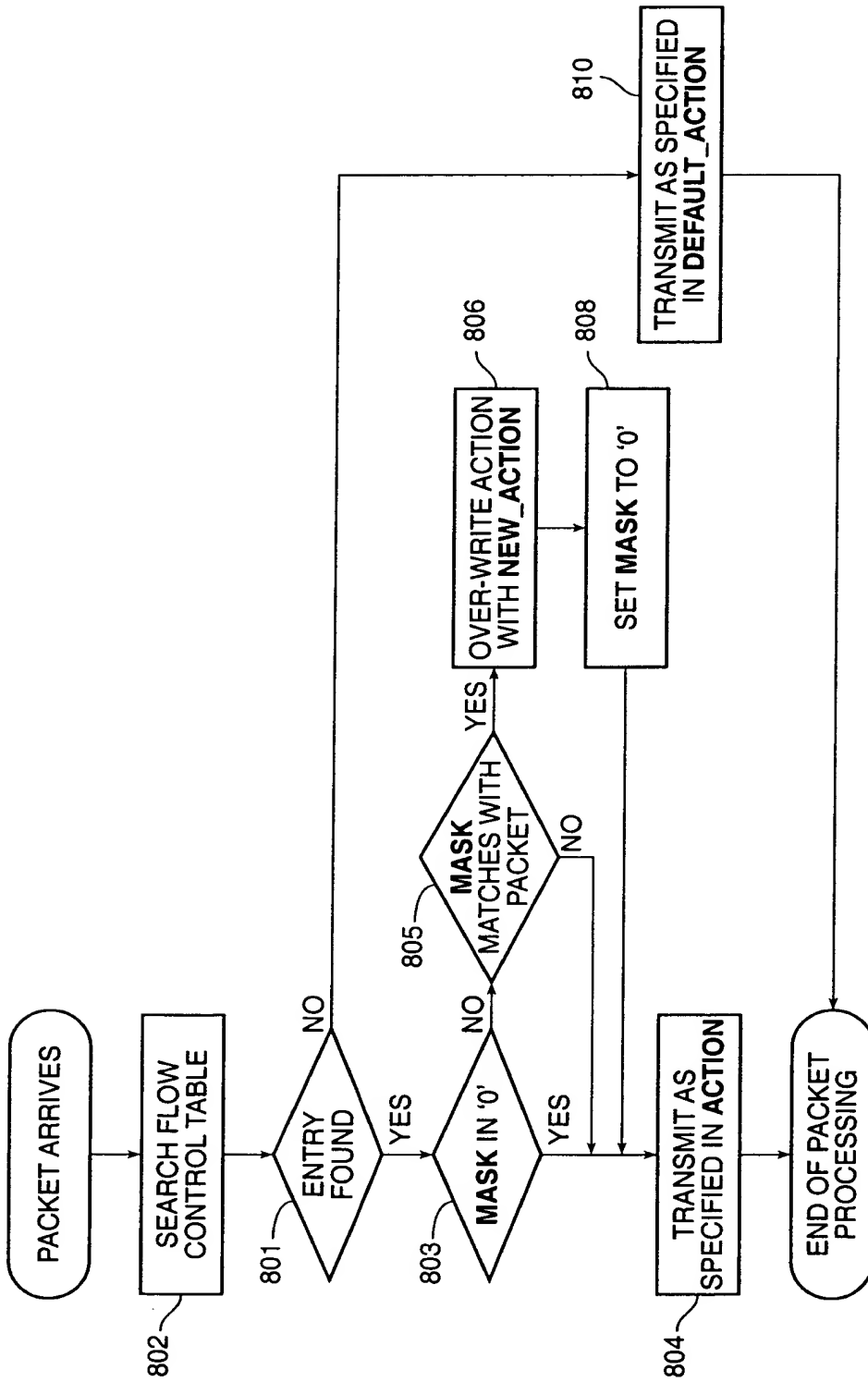


FIG. 8

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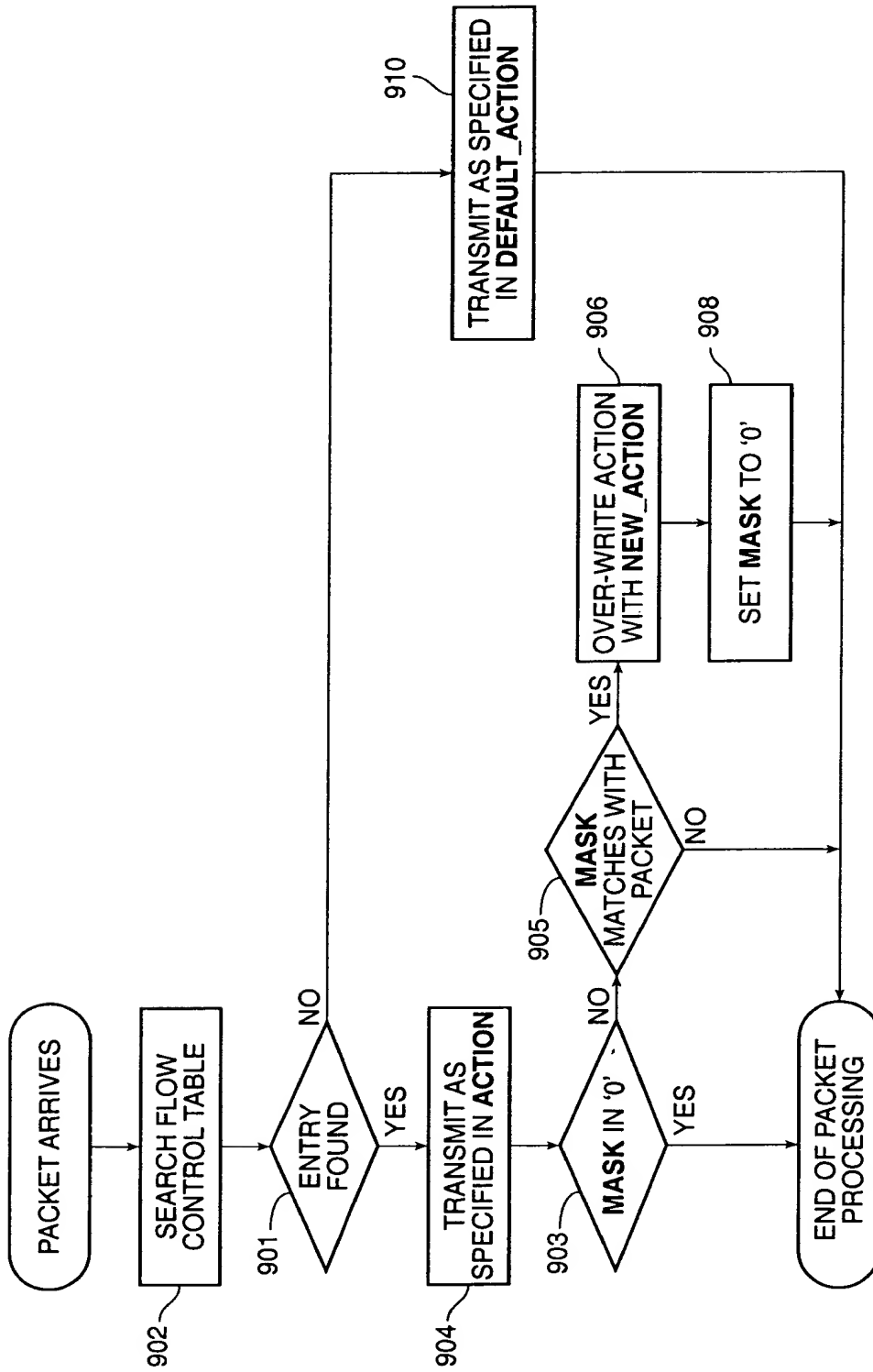


FIG. 9

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boolean Set_QoS (in FLOW target_flow, in ACTION new_action, in octet mask) ;

FIG. 10

```
enum HEADER_FIELD { TOS_FIELD, ... } ;

typedef sequence<octet>      FIELD_VALUE ;

struct PAYLOAD_FIELD {
    unsigned short      offset_position ;
    unsigned short      field_field ;
};

enum MASK_POSITION { IN_HEADER, IN_PAYLOAD } ;

union MASK switch (MASK_POSITION) {
    case IN_HEADER:
        HEADER_FIELD      target_header_field ;
        FIELD_VALUE        field_value ;
    case IN_PAYLOAD ;
        PAYLOAD_FIELD      target_payload_field ;
        FIELD_VALUE        field_value ;
};

boolean Set_QoS ( in FLOW target_flow, in ACTION new_action, in MASK mask ) ;
```

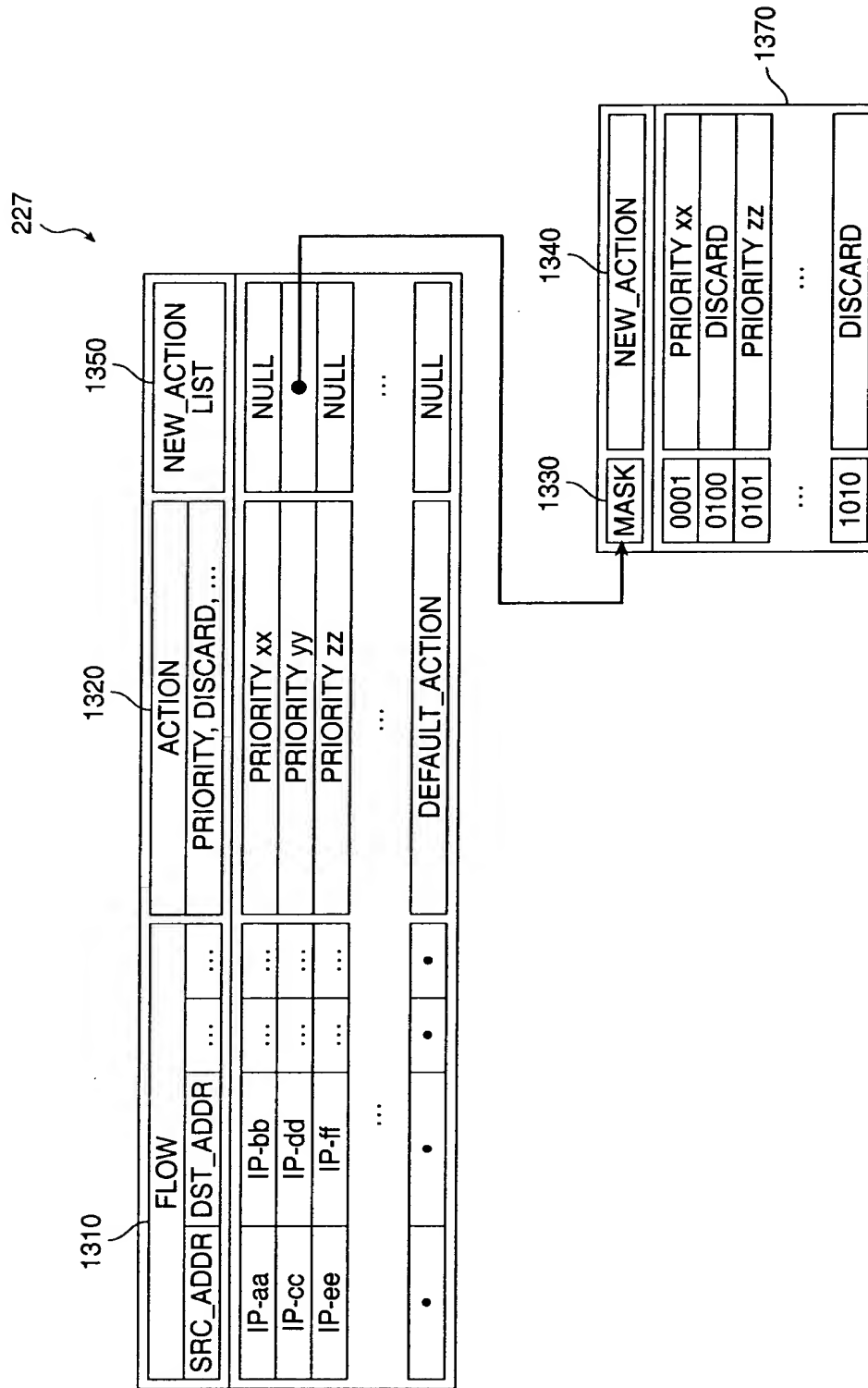
FIG. 11

```
boolean Set_QoS ( in FLOW target_flow, in ACTION new_action ) ;

boolean Commit_Change ( in MASK mask ) ;
```

FIG. 12

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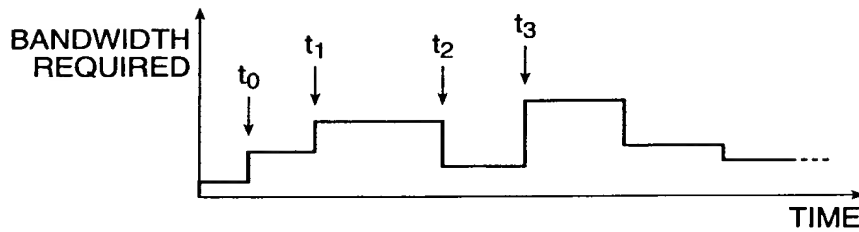


FIG. 14

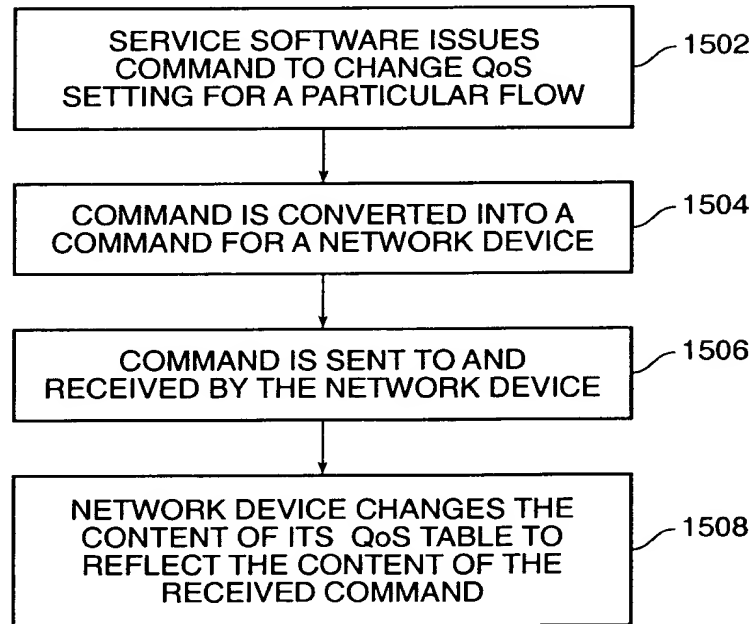


FIG. 15 PRIOR ART